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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/733,813	12/08/2000	Vahan Avetisian	259/175	3080

7590 12/14/2004  
Thomas J. Brindisi  
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EXAMINER

BERGIN, JAMES S

ART UNIT PAPER NUMBER

3641

DATE MAILED: 12/14/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/733,813

Applicant(s)

AVETISIAN ET AL.

Examiner

James S. Bergin

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 24 September 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-5, 7-13, 15, 16, 19, 20 and 26-29 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-5, 7-13, 15, 16, 19, 20 and 26-29 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### *Response to Amendment*

1. The Declaration under 37 CFR 1.132 filed 4/9/2004 is insufficient to overcome the rejection of claims 1-5, 7-13, 15, 16, 19, 20, and 26-29 based upon the rejections involving Refouvelet et al. (US 5,576,509), Taylor et al. (US 2,741,179) and Craig et al. (US 3,906,858) as set forth in the last Office action because: the examiner believes that statement in lines 4-6 of the Refouvelet et al. abstract, "*The casing includes a molded plastics material surrounding at least the endplate and a portion of the electrodes*, can be reasonably interpreted to mean that the molded plastics material can surround somewhat more than just the endplate and a portion of the electrodes, and does not preclude the molded plastic potentially surrounding the upper portion of the initiator. Given this reasonable interpretation of the Refouvelet et al. disclosure, the examiner still believes that Refouvelet et al. can be fairly modified by the teachings (not the actual components) of Taylor et al. or Craig et al. as set forth in the previous action and as repeated below.

2. The examiner fully considered the above referenced declaration prior to writing the last office action but did specifically refer to it in the action. The examiner thanks the applicant's representative for bringing this to the attention of the examiner. It is noted that the author of the Declaration is one of the named inventors of the instant application. While the opinions of the inventor Vahan Averisian have been considered, they were not found to be convincing, prior to the last office action. Accordingly the

rejections were maintained even in the light of the above noted declaration. Because this declaration was fully considered by the examiner prior to writing the last office action, the following rejection is made final.

3. Applicant's arguments filed 9/24/2004 have been fully considered but they are not persuasive. The language of the Refouvelet et al. abstract, "*The casing includes a molded plastics material surrounding at least the endplate and a portion of the electrodes*, can be reasonably interpreted to mean that the molded plastics material can surround somewhat more than just the endplate and a portion of the electrodes, and does not preclude the molded plastic potentially surrounding the upper portion of the initiator. In response to these arguments regarding the rejections involving Refouvelet et al. (US 5,576,509) in view of either Taylor et al. (US 2,741,179) or Craig et al. (US 3,906,858), both Taylor et al. and Craig et al. teach that it is old and well known in the art to substantially surround all of an initiator subassembly except for an exposed portion of a connector end with an electrically-nonconductive body to form a protective casing. It is this teaching that is being used to modify Refouvelet et al., not the physical components of either Taylor et al or Craig et al. Note that the examiner is not and has never suggested that the coating 65 and disk 46 of Craig et al. are unitary or that the coating 65 and the disk 46 be used to modify Refouvelet et al. Note also that the examiner has never suggested that the actual physical rubber like coating of Taylor et al. be used to modify Refouvelet et al. As previously noted in the response to arguments section of the last action, the applicants are reminded that the examiner is not modifying Refouvelet et al. with the actual protective casings of

either Taylor et al. or Craig et al. but is instead modifying Refouvelet et al. with the teaching found in either Taylor et al. or Craig et al., of surrounding all of an initiator subassembly except for an exposed portion of a connector end with an electrically-nonconductive body to form a protective casing.

***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1-5, 8-11, 26 and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Refouvelet et al. (US 5,576,509 A) in view of either Taylor et al. (US 2,741,179 A) or Craig et al. (US 3,906,858 A).

Refouvelet et al. disclose the initiator and the method of making the initiator substantially as claimed. Refouvelet et al.'s integral and unitary molded plastic body (fig. 1) surrounding the initiator subassembly provides structural support and installation orientation features. Furthermore, Refouvelet et al.'s initiator subassembly comprises a glass-to-metal sealed header assembly (fig. 1, col. 2, lines 25 – 67).

However, Refouvelet et al. do not disclose, in Fig. 1, the electrically-nonconductive overmolded body surrounding substantially all of the initiator

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subassembly. Lines 4-6 of the abstract state that the casing includes a molded plastics material surrounding at least the end plate and a portion of the electrodes. This statement can be reasonably interpreted to mean that the molded plastics material can surround somewhat more than just the endplate and a portion of the electrodes and does not preclude the molded plastic potentially surrounding the upper portion of the initiator. Both Taylor et al. and Craig et al. teach that it is old and well known in the art to substantially surround all of an initiator subassembly except for an exposed portion of a connector end with an electrically-nonconductive body to form a protective casing. Note that the examiner is not suggesting that the coating 65 and disk 46 of Craig et al. are unitary.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to extend the **pre-existing integral and unitary overmolded plastic body 10 of Refouvelet et al.** such that it surrounded substantially all of the initiator subassembly of the Refouvelet et al. initiator to form a protective casing therefor, in view of the teachings of Taylor et al. or Craig et al. noted above.

6. Claims 7 and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Refouvelet et al. (US 5,576,509 A) in view of Hansen et al. (US 5,932,832 A) and either Taylor et al. (US 2,741,179 A) or Craig et al. (US 3,906,858 A).

Refouvelet et al., Taylor et al. and Craig et al. are applied as above. However, they do not disclose a nylon overmolded body. Refouvelet et al. disclose that the

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molding 10 can be formed of a polyamide. Hansen et al teach, in Fig. 2, that it is old and well known in the art to form an overmolded body of an initiator of nylon. Nylon is a well known polyamide. To form the overmolded body of the initiator formed by the combination of Refouvelet et al. and either Taylor et al. or Craig et al. of nylon, as taught by Hansen et al., would have been obvious to one having ordinary skill in the art at the time the invention was made.

7. Claims 12, 13 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Refouvelet et al. (US 5,576,509 A) in view of Swann et al. (US 6,295,935 B1) and either Taylor et al. (US 2,741,179 A) or Craig et al. (US 3,906,858 A). Refouvelet et al, Taylor et al. and Craig et al. are applied as above. However, Refouvelet et al, Taylor et al and Craig et al do not state that the overmolded body is formed by injection molding. Swann et al. teach injection molding to be an old and well known method of molding an overmolded body around an initiator subassembly. To injection mold the overmolded body around the subassembly initiator formed by the combination of Refouvelet et al. and either Taylor et al. or Craig et al. as taught by Swann et al., would have been obvious to one having ordinary skill in the art at the time the invention was made.

Regarding claim 20, Refouvelet et al. disclose that the pyrotechnic substance 2 is provided such that it *"completely fill the casing 3 and to be in intimate contact with the filament 9"* (col. 4, lines 1-6 and fig. 1).

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8. Claims 15, 16 and 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Refouvelet et al. (US 5,576,509 A) in view of Swann et al. (US 6,295,935 B1), Seavey (US 2,968,985 A) and either Taylor et al. (US 2,741,179 A) or Craig et al. (US 3,906,858 A). Refouvelet et al., Swann et al., Taylor et al. and Craig et al. are applied as above. However these references do not disclose injecting the molten material at the upper region of the initiator subassembly. Seavey teaches that it is old and well known in the art to vary the position of the injection points in a mold to achieve a desired result, note lines 30-35, col. 3. It would have been obvious to one having ordinary skill in the art at the time that the invention was made to inject the molten material at the upper region of the initiator subassembly in the method formed by the combination of Refouvelet et al., Swann et al., and either Taylor et al., or Craig et al. in view of the teachings of Seavey.

9. Claim 19 is rejected under 35 U.S.C. 103(a) as being unpatentable over Refouvelet et al. (US 5,576,509 A) in view of Swann et al. (US 6,295,935 B1), Hansen et al. (US 5,932,832 A) and either Taylor et al. (US 2,741,179 A) or Craig et al. (US 3,906,858 A). References are applied as above. To injection mold a nylon overmolded body around the subassembly of the initiator formed by the combination of Refouvelet et al. and either Taylor et al. or Craig et al, as taught by Swann et al. and Hansen et al, would have been obvious to one having ordinary skill in the art at the time the invention was made.



***Conclusion***

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Avetisian et al. (US 6,763,764 B2).

11. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to James S. Bergin whose telephone number is 703 308-8549. The examiner can normally be reached on Monday - Wednesday and Friday, 8.30 - 5.30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Carone can be reached on 703 306-4198. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



James S. Bergin



MICHAEL J. CARONE  
SUPERVISORY PATENT EXAMINER